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National Airspace System (NAS) Aeronautical Information Management Enterprise Systems II (NAIMES-II) Program

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C. 1 BACKGROUND

This statement of work supports the Department of Transportation/Federal Aviation Administration National Airspace System (NAS) Aeronautical Information Management Enterprise Systems II (NAIMES II). NAIMES II is a program of the FAA ATO-R Aeronautical Information Management (AIM) group and is supported by the DoD (Department of Defense). NAIMES II consists of a suite of NAS safety/mission critical systems and services that directly support the collection, validation, management, and dissemination of aeronautical information in the NAS. NAIMES II provides users with real-time access to critical aeronautical data essential for operations within the NAS. These products and services provide aeronautical information to the civil, military, and international aviation communities. The NAIMES II contractor is responsible for providing Implementation, In-Service Management and Disposition support for AIM operational services and systems at required operational performance levels.

The FAA's strategic plans, including specific goals for NAIMES II, and other background plans and documents, are available at the FAA's web site, http://www.faa.gov/about/plans_reports/ and the FAA Acquisition System Toolset at http://fast.faa.gov. The following specific documents are incorporated in this SOW by reference:

- 2009-2013 FAA Flight Plan
- 2009 ATO Business Plans
- AIM Enterprise Architecture Governance*
- AIM "AS IS" Enterprise Architecture*
- JO 7400.8P Special Use Airspace
- FAA 7930.2K Notices to Airmen (NOTAMs)
- FAA Order 1800.66 – Configuration Management Policy
- MIL-HDBK-61A: Configuration Management Guidance
- FAA Work Breakdown Structure (WBS)
- FAA Standard 028 – Contract Training Programs
- FAA Order 1800.58A – NAS Integrated Logistics Support
- FAA Earned Value Management Guide
- NAIMES document library*
- MILOPS document library*

- These documents can be found on the http://nfdc.faa.gov/naimesII web site.

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C.2 SCOPE

This SOW covers the following activities as described by the FAA's work breakdown structure (see fast.faa.gov):

WBS 4 Implementation
WBS 5 In-Service Management
WBS 6 Disposition

The contractor must be prepared to support the WBS elements and sub-elements listed above as they apply to the NAIMES-II tasking provided section C.3.

The Contractor must support the following FAA AIM mission areas:

- Implementation of new aeronautical information operational services for internal and external customers
- In-Service management of aeronautical information operational services for internal and external customers
- Disposition of legacy aeronautical information operational services that are supplanted or replaced by newly implemented systems and services under the AIM Modernization program

The contractor must provide for system implementation, operations, maintenance and user support for mission essential and mission support operational services for aeronautical information. These operations services provide:

- Notices to Airman (NOTAM) services – creating, managing and distributing NOTAMs
- Dynamic airspace management services – airspace scheduling, de-confliction, dissemination and other airspace management functions
- Aeronautical information services – aggregation and dissemination of aeronautical information to other operational systems
- Weather briefing services – weather reporting and weather briefing services for customers
- Pilot briefing services – pre-flight information briefings
- Flight planning services – flight plan validation, flight plan filing and flight plan amending

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In supporting the aeronautical information operations services listed above, the Contractor must provide the follow capabilities:

- Implementation support to transition systems from initial operational capability to final operational capability. The NAIMES II Contractor must work with AIM management, AIM system engineering support contractors, AIM solution development Contractors, DoD and other stakeholders to efficiently transition new solutions and capabilities from the Solution Development phase through initial operating capability to In-Service Management.
- In-Service management support to operate, maintain, and provide user and system support to keep NAIMES II services operating at required levels of safety, security and service reliability.
- Disposition support to phase out legacy systems that are being supplanted by new capabilities.

In providing the capabilities above the Contractor must provide the following services:

- In-Service Management of test, development and operational sites for NAIMES II systems
- 24x7 first line user support including help desk and issue tracking
- 24x7 engineering, system administration and database administration support to include system troubleshooting, equipment replacement, technology refresh and system preventative maintenance
- Technology transfer and transition of AIM Modernization systems from AIM Management and Contractors responsible for new AIM system development to the NAIMES II contractor.
- Technology transfer, system migration and transition from initial operating capability into In-Service Management.
- System disposition including transition from legacy system to the new system under the AIM Modernization program.
- Installation and operations of multi-site AIM infrastructure including support for real-time failover, load balancing and disaster recovery.
- Network and security services to support yearly security certifications for FAA (SCAP) and DoD (DIACAP).
- Coordination with other FAA system and network engineers to ensure the secure operation of AIM systems and to ensure AIM systems are integrated with other NAS systems.
- Continuity of Operations Plan (COOP) and disaster recovery
- Site selection, engineering and preparation
- System acceptance testing
- System monitoring

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- Network engineering

The contractor must provide implementation, in-service management and disposition capabilities for aeronautical information operational services to support the following customers and stakeholders:

- Aeronautical Information Management
- Designated AIM contract support providing mission support, investment analysis and solution development for AIM.
- FAA Air Traffic Operations
- United States Department of Defense including combatant commanders and warfighter
- Pilots, Airlines, Dispatchers and other external users of NAIMES II services
- ICAO and international NAIMES II service users

The Contractor must provide implementation, in-service management and disposition support for all systems transitioned to the contractor. Systems transitioned to NAIMES II include legacy NAIMES and MILOPS systems as well as systems developed under the AIM Modernization program. Existing legacy systems that must be operated by the contractor include:

- US NOTAM System (USNS & Master Database)
- NOTAM Portal Distribution to Towers/TRACONS/FSS
- NES (NOTAM Entry System)
- AISR (Aeronautical Information System Replacement)
- DINS (Defense Internet NOTAM Service)
- DoD Graphical TFR/SUA (Temporary Flight Restrictions/Special Use Airspace)
- CARF (Central Altitude Reservation Function)
- ATCSCC and CDM - Aeronautical Information Distribution/Portals portals for FAA and Airlines
- PilotWeb General Aviation Website
- AIDAP (Aeronautical Integrated Data Access Portal)
- NOTAM/Weather Portal Distribution to External Users
- CAPSTONE/WAASAPS (Wide Area Augmentation System Availability Prediction System – Alaska and NAS-wide)
- GPS Outages (USNS and DINS)
- ISP/IAP Services (for NAIMES, ETMS, ATCSCC, etc.)
- NAS IP Address Assignments
- 24x7 NAS Technical Support Services,
- Management, support, and interface with FAA ADTN (and SoftToken), FIRMNet, FTI, NADIN PSN/MSN network domains and DoD NIPRNet,
- Query functions to display Flight Safety NOTAMs, FDC NOTAMs including temporary flight restrictions such as Presidential and National Security information

- Query functions for all NOTAMs within a radius of a location (specified by location identifier or by longitude and latitude)
- Query for North Atlantic and Pacific Tracks
- Access to the ATCSCC Operational Information System and the Route Management Tool
- Access to a centralized Weather Page providing a comprehensive collection of Convective Forecasts, METARs & TAFs, Pilot Weather and Satellite & Radar Forecasts
- Special Use Airspace Management System (SAMS)
- Military Airspace Data Environment (MADE)
- Airspace display and query functions available by web service and web page.

The AIM Modernization program will acquire new systems that NAIMES II must implement and operate:

- Federal NOTAM System (FNS)
- Advanced Dynamic Airspace Management (ADAM) System
- Common Status and Structure Data (CSSD) System
- Aeronautical Information Services Modernization (AIS-M) System

The Contractor will be responsible for maintaining a diverse system infrastructure of hardware, operating systems and software. This infrastructure can include COTS and government owned software. The Contractor will be responsible for maintaining and providing technical support for COTS and government owned software that includes:

- Databases including Oracle, PostgreSQL and Microsoft SQLServer
- Business rule engines including JBOSS Rules
- Workflow systems such as JBOSS workflow engine
- Enterprise Service Buses and other Service Oriented Architecture components such as those produced by IONA software
- Identity management software including Sun Identify Management
- Geographic Information System software including ESRI, Luciad and other systems compliant with Open Geospatial Consortium standards
- Sun One, Solaris, Linux, Windows operating systems
- Oracle, Sun, Tomcat and other application services
- Custom applications written in J2EE, Java, Microsoft C# and other languages.
- System monitoring software
- Service Oriented Architecture (SOA) components
- Document and content management systems

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C.3 REQUIREMENTS

The Contractor must provide all necessary qualified personnel, facilities, materials, services, technical, business and administrative planning, organizing, directing, and coordinating required to successfully administer and control activities required to accomplish the efforts within this SOW.

C.3.1 Program and Operations Management (CLIN 0001, 1001, 2001, 3001, 4001)

The contractor must provide program management and operations support to ensure Implementation, In-Service Management and Disposition of AIM Modernization systems for which NAIMES II is responsible.

C.3.2 Program Management

The Contractor must implement a formal program management plan to coordinate and control the execution of the NAIMES II SOW. The Contractor must use project management best practices such as Project Management Institute (PMI) Project Management Professional (PMP) for project management.

The Contractor must assign a dedicated Program Manager to establish the program requirements and to organize, plan, schedule, implement, control, analyze, and report on all elements of the contract. The Program Manager must be accountable to the Government for all coordination efforts and work performed under this contract. The Program Manager may delegate authority and responsibilities to staff; however, the Program Manager must still be accountable for the overall program.

C.3.3 Program Management Reviews

The Contractor must present and administratively support monthly Program Management Reviews (PMR). The Contractor must host monthly PMRs in a format and location mutually agreed upon by the FAA and the Contractor. The Contractor's PMR agenda must include the following:

- Report on performance metrics and trends
- Project status including risk
- Recurring activity status including risk
- Financial status
- 60 day forecast of anticipated projects and recurring activities

- 60 day forecast of financial status
- 60 day forecast of ODC and GFE purchases including hardware and software
- Revisions to the organizational chart and lists of staff
- Revisions to the Program Management Plan
- Updates to the Master Program Schedule
- Updates to the Master Program Calendar
- Summary of user support requests and resolution

The Contractor must conduct additional status reviews and Technical Interchange Meetings (TIM) as requested by the Government to support the scope of the SOW. To support the TIMs, the Contractor must be prepared to support briefings and verbal discussions regarding the technical details of contract activities. To support the TIM, the Contractor must be prepared to provide access to contract deliverables and documents as directed by the Contracting Officer Technical Representative (COTR). Documentation provided by the TIM may include documents from the document management system, configuration management system, architecture management, user support management, risk/safety management or other deliverables as required by the COTR.

C.3.4 Program Management Plan (PMP)

The Contractor must provide and deliver a Program Management Plan (PMP) documenting how the Contractor will plan, organize, manage, perform, and report on all work efforts. The PMP must include the provisions set forth below:

- A process for ensuring all SOW requirements are met
- A process for identifying, tracing, resolving and reporting technical and administrative problems
- A Personnel Management process to manage fluctuations in work levels due to rapid changes in staffing requirements, including the recruiting and retention of personnel so as to maintain efficient levels of staffing throughout the contract performance period
- A list of personnel (including subcontractors) responsible for each contract work breakdown structure (CWBS) element activity.
- A process of managing relationships with other organizations to include Government organizations, vendors, and subcontractors to minimize lead times or delays.
- A process for performance management that describes the approach and methodology to be used in establishing and maintaining the NAIMES II contract performance scheduling and reporting system.

- A process for cost management that describes the approach and methodology to be used to provide a cost management system to monitor costs incurred during contract performance and to project future costs.
- An organizational chart showing key management and task oversight personnel (including subcontractors). The chart must include authority and lines of communication. The chart must be organized by CWBS element activity.
- A communications plan with AIM management, AIM contractors, DoD and other stakeholders to ensure events associated with systems under the NAIMES II contract is appropriately communicated to management, executives and other stakeholders.
- A process for ensuring NAIMES II activities are in compliance with AIM strategic plans and enterprise architecture.
- Risk and Safety management plan as described in C.3.6
- Quality assurance plan as described in C.3.7
- Configuration management plan as described in C.3.8
- Performance plan as described in C.3.9
- User support management plan as described in C.3.10
- Architecture management plan as described in C.3.11
- Document management plan as described in C.3.12

The PMP is a living document that must be approved by the Government. The Contractor is responsible for providing necessary updates to the PMP at monthly program management reviews (PMR).

C.3.5 Master Program Schedule and Calendar

The Contractor must provide and maintain an integrated Master Program Schedule and Calendar developed from the hierarchy of individual project schedules.

The master schedule must contain sufficient detail to depict the tasks, milestones, and critical path associated with the major objectives and deliverables of the systems to be supported in accordance with this contract.

The Contractor must provide and maintain an integrated activity calendar to track recurring In-Service Management activities.

C.3.6 Risk and Safety Management

The Contractor must perform risk and safety management for early identification, continuous tracking, and systematic reduction of elements that could impact the program's ability to meet its technical, cost or schedule objectives. The Contractor must provide and maintain a Risk and Safety Management Plan, which must be incorporated into the Program Management Plan unless otherwise required by specific activities such as deliverables specified for:

- Acquisition Management Investment Analysis and Program Implementation Activities. This includes risk and safety analysis and reporting as described by AMS (fast.faa.gov).
- Safety Risk Management System (SMS). The FAA requires all NAS changes to evaluated for safety and risk. The formal safety risk management process, SMS, may require formal participation and/or documentation from the Contractor.
- NAS Change Proposal (NCP) support activities. NCP's are used to baseline and document changes to NAS systems and will be required when major system changes are implemented by the Contractor.

The plan must document the program's risk management activities, including the methods of risk identification, assessment, prioritization, control, implementation of mitigation and contingency plans, and reporting. It must also identify the program personnel with assigned risk management roles.

The Contractor must support AIM with Safety Management activities related to activities conducted under the NAIMES II Contract. This includes participation on safety panels and assistance with Safety Risk Management documentation.

The Contractor must establish a program risk management database to document, track, report, and archive the status of program risk items. The database should contain the following information:

- Unique identifier of the risk item
- Risk Title
- Risk Probability (high, medium, low)
- Risk Severity (high, medium, low)
- Description
- Impact / Consequence
- Risk Owner / Practitioner
- Status (as defined below)
- Date Risk Identified
- Risk Area (i.e., contracts, system engineering, design, test, etc.)

- Impact time frame (e.g., earliest date the risk impact could materialize and the latest date it could materialize)
- Risk Mitigation Plan
- Historical Events Log

Status Definitions:

Issue: A perceived risk that has already occurred or has absolute certainty to occur in the near future, is classified as an issue, and not as a risk. An issue should not be recorded as a risk, as it cannot be mitigated.

Mitigate: Action(s) planned or taken to cause the risk to become less severe or to eliminate it. All risks items require a mitigation plan. High risk items also require a contingency plan.

Retired: A risk is retired when it becomes an issue, has been mitigated, or the risk event has passed.

Watch: A risk is placed in watch status when immediate mitigation is not necessary. Most low risk items are candidates for watch status.

The database must be capable of producing summary reports of risk status by identification number and risk priority. The database must be approved by the COTR. The database must be accessible by AIM and AIM designated contractors. Risks and planned mitigation actions and status must be reported at the Monthly PMR.

C. 3.7 Quality Management

The Contractor must apply continuous quality improvement based on ISO 9001-20001. The contractor (and subcontractor) team must achieve ISO 9001-2001 certification within 18 months of contract award and must maintain certification throughout the contract period of performance. The Contractor must establish and execute an internal Quality Assurance Program (QAP). The Contractor must provide and maintain a Quality Assurance Plan, which must be incorporated into the PMP. Consistency is to be maintained between the PMP and actual practices. The Contractor must ensure the QAP governs the quality assurance (QA) practices of all Contractor personnel, including teammates / subcontractors.

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C.3.8 Configuration Management

The Contractor must establish and implement a Configuration Management (CM) process to include all subcontractors and vendors. The CM process must consist of CM disciplines planning and management, configuration identification, configuration control, status accounting, configuration verification and audits in compliance with FAA Order 1800.66, FAA Configuration Management Policy and MIL-HDBK-61A, Configuration Management Guidance.

The Contractor must provide and maintain a Configuration Management Plan (CMP), which must be incorporated into the FAA approved Contractor PMP. The Contractor CMP must describe roles and responsibilities and establish a Configuration Control Board (CCB) to control approved configurations. The COTR will designate one or more members o the CCB including one or more DOD representatives.

The Contractor must adopt or provide an approved electronic CM system. The Contractor must ensure all NAIMES II Contractors (and subcontractors); AIM FAA personnel and Contractors identified by AIM FAA personnel have access to the electronic CM system.

C.3.9 Performance Plan

The Contractor must provide and implement performance management. Performance management enables the Government and the Contractor to assess the success of the NAIMES II contract by considering operations, cost, schedule, and benefits performance associated with the execution of the NAIMES II Contract Line Items (CLINs).

Performance management must be described in a performance plan which must be incorporated into the FAA approved Contractor PMP. The Contractor must update the performance plan every twelve months. Performance measurements, targets, definitions and measurement procedures must be reviewed and accepted by the Government.

The table below lists performance metrics, targets and weightings based on the Government's preference for a highly available, quality, cost effective and agile In-Service Management and Disposition contract.

NAIMES II Performance Metrics			
Metric	**Description**	**Target**	**Weight**
System Availability	Clients (human and systems) are able to access services from the NAIMES II systems.	Monthly service availability of 99.9% or higher excluding scheduled maintenance.	
Help desk availability	Available 24x7.	Monthly service availability of 99.9%	

Help desk response	Response time on all help desk user support requests.	Less than 1 hour for initial response to help desk request.	
Scheduled Maintenance	Scheduled Maintenance is defined as any maintenance affecting the NAIMES II systems.	Communicate scheduled maintenance notices at least 24 hours before outage.	
Failover	Resumption of services upon a hardware failure.	Failover systems will resume service operation within 5 minutes of a detected hardware failure.	
ISO 9001	ISO 9001 Quality Management Program.	Maintain NAIMES II Contractor ISO 9001 certification and pass 100% of audits.	

C.3.10 User Support Management

The Contractor must provide and implement a User Support Management Plan to receive, track and resolve user support requests related to systems managed under the NAIMES II contract. The User Support Management Plan must be incorporated in the FAA approved Contractor PMP.

The Contractor must track user support requests and resolutions within a User Support Database. The system must record:

- User name and identification
- User contact information
- Problem description
- Priority
- Affected or identified system
- Affected or identified system sub-component
- Affected or identified system version
- Date of call
- History of resolution dates, actions and interaction with the user
- Support call status
    - Open
    - Closed
    - Verified
    - Rejected
    - On Hold

The User Support Database must be accessible to the FAA AIM personnel and designated support Contractors. The User Support Database must be approved by the Contracting Officer and COTR.

C.3.11 Architecture Management

The Contractor must provide an Architecture Management Plan to manage the configuration of the NAIMES II architecture and ensure conformance with AIM Enterprise Architecture governance. The AIM Enterprise Architecture Governance document is incorporated by reference in section C.1

The Contractor must maintain DODAF architecture products in the AIM Enterprise Architecture repository using a COTR specified architecture tool (currently, IBM System Architect). The Contractor will be responsible for maintaining system views depicting physical system architecture.

The Architecture Management Plan must be incorporated into the FAA approved Contractor PMP.

C.3.12 Document Management

The Contractor must establish and maintain a document management process to include:

- Versioning and configuration management
- Review and resolution of comments
- Electronic (FAA intranet) access by all Contractor (and subcontractor) staff, AIM personnel, DOD personnel and support Contractors identified by AIM FAA personnel

The document management system used by the Contractor must be approved by the COTR. The document management plan must be included in the PMP.

C.3.13 Monthly Status report

The Contractor must provide a monthly status report.. The monthly status report must contain the following:

- Summary of all activities (incorporating risk) that occurred during the reporting period organized by WBS. Those activities include:
    - Ongoing activities
    - New activities

  - Completed activities
  - 60 day forecast of anticipated projects and recurring activities
- Report on performance metrics and trends
- Summary of all system outages and resolution that occurred over the reporting period
- Financial status
  - 60 day forecast of financial status
  - 60 day forecast of ODC and GFE purchases including hardware and software
- Revisions to the organizational chart and lists of staff
- Updated Master Program Schedule
- Updated Master Program Calendar
- Summary of government actions required

C.3.14 Operations

The contractor must provide In-Service Management services for systems managed by NAIMES II and/or transitioned to NAIMES II. The contractor must be able support all activities associated with WBS 5 In-Service Management.
For all systems that have been transitioned to NAIMES II, the Contractor must provide the following:

- In-Service Management of test, development and operational sites for NAIMES II systems
- 24x7 first line user support including help desk and issue tracking
- 24x7 engineering, system administration and database administration support to include system troubleshooting, equipment replacement, technology refresh and system preventative maintenance
- Technology transfer and transition of AIM Modernization systems from AIM Management and Contractors responsible for new AIM system development to the contractor.
- Technology transfer, system migration and transition from initial operating capability into In-Service Management.
- System disposition including transition from legacy system to the new system under the AIM Modernization program.

- Installation and operations of multi-site AIM infrastructure including support for real-time failover, load balancing and disaster recovery.
- Network and security services to support yearly security certifications for FAA and DoD.
- Coordination with other FAA system and network engineers to ensure the secure operation of AIM systems and to ensure AIM systems are integrated with other NAS systems.
- Continuity of Operations Plan (COOP) and disaster recovery
- Site selection, engineering and preparation
- System acceptance testing
- System monitoring
- Network engineering
- Coordinate with security, networking, communications and other IT infrastructure teams to ensure these systems are integrated into the National Airspace System and comply with appropriate FAA and DOD IT requirements.
- Create and maintain the necessary system and support documentation to effectively manage and monitor NAIMES II systems.
- Create and maintain the necessary support systems and processes to maintain mission essential NAIMES II system services and to provide high quality engineering and help desk support for NAIMES II systems.

C.3.15 Remote Administration Operations

The contractor must deploy and operate a Government selected remote monitoring and "lights out" system administration strategy for management of the multiple NAIMES II system sites. The Contractor must integrate the remote monitoring system into the AIM-enterprise monitoring system as specified by the COTR. The remote monitoring and "lights out" system administration must be incorporated into the NAIMES II program management plan.

C.3.16 Operations Documentation

To ensure quality of operations and support return to service in case of failures or disasters, the contractor is required to maintain an up to date set of system documentation. The contractor must maintain the following documentation:

- System installation manuals
- System user manuals
- Network diagrams
- Rack diagrams

- Software/system allocation diagrams showing how logical software subsystems are allocated to physical hardware
- Enterprise architecture artifacts as required by section C.3.11
- Continuity of Operations (COOP) plan

The PMP provided by the Contractor may specify additional documentation to be maintained as part of NAIMES II system management.

The Contractor must maintain local copies of source code, operating systems and patches at each operational site. Master copies of source code, operating systems and patches must be managed in the Contractor Document Management and/or Configuration Management System.

C.3.17 User Support Management

The Contractor must provide a 24x7 first level user support help desk. The Contractor must provide and implement user support guidelines and escalation procedures for each system managed by the NAIMES II Contractor. The help desk must be able to perform the following activities:

- Log support calls
- Resolve user support questions regarding the operation of systems maintained by NAIMES II
- Record resolution of support in the user support database
- Verify system and system component operations

C.4 Contract Transition (CLIN 0002)

The NAIMES II Contractor is responsible planning and executing transition from the incumbent NAIMES contractor.

For transition the Contractor must provide a plan that covers the period from NAIMES II contract award through the next 6 months. During the first 3 months the NAIMES and NAIMES II contract will overlap. The final 3 months provide NAIMES II with additional time to complete transition documentation and fully implement program and operations management processes as described in C.3.1.

This transition plan must describe an integrated and comprehensive approach for the transition effort from the existing contract(s) to the NAIMES II effort. The transition plan must include estimated resource requirements from the incumbent NAIMES contractor.

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C.4.1 Initiation of AIM Modernization Systems (CLIN 0003, 1003, 2003, 3003, 4003)

The NAIMES II Contractor must provide test and development systems to support development of AIM Modernization systems. The NAIMES II Contractor must work with AIM and the AIM Modernization solution development contractors to ensure there is adequate development and testing hardware to support the solution developer needs.

The Contractor must:

- Develop and assist with acquiring necessary hardware, software and other infrastructure to support AIM Modernization system development
- Provide access to NAIMES II test and development software and hardware for authorized AIM Modernization solution developers
- Provide help desk and engineering support for assisting solution developers with hardware, software or other infrastructure issues associated with infrastructure provided and maintained by NAIMES II.
- Provide processes and a guideline to enable the solution developer contractor with efficient access to the NAIMES II test and development systems to support rapid development and test cycles.

C.4 2 Implementation and Disposition Management

The Contractor must manage system transition from:

- Incumbent NAIMES contractors currently operating legacy NAIMES systems
- Incumbent MILOPS contractors currently operating legacy MILOPS systems
- AIM Modernization solution develop contractors developing new systems under the AIM Modernization program

For the transition the Contractor must provide personnel to support any and all activities under WBS 4 Implementation. In cases where the new system replaces an old system the Contractor must provide personnel to support any and all activities under WBS 6 Disposition.

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C.4.3 Implementation Process (CLIN 0004, 1004, 2004, 3004, 4004)

The Contractor must provide and document a process for transitioning systems so they can be operated and maintained under NAIMES II. This process should include the steps and requirements a system solution developer must achieve to ensure seamless system acceptance and operation by NAIMES II. Components of this process must include:

- Development of a transition plan and schedule for each transition project
- Documentation and other system artifact requirements
    - Creation or delivery of installation manuals
    - Creation or delivery of user manuals
    - Creation or delivery of network diagrams
    - Creation or delivery of rack diagrams
    - Creation or delivery of software/system allocation diagrams showing how logical software subsystems are allocated to physical hardware
    - Creation or delivery of enterprise architecture artifacts as required by section C.3.11.
- Develop and assist with acquiring necessary hardware, software and other infrastructure to support implementation in the NAIMES II test, development and operational environment
- System acceptance testing requirements
- Typical schedule for completing implementation process
- Risk management and resolution
- Process for tailoring and waiving implementation process requirements
- Process for disposing of legacy systems replaced by the implemented system. The process must include steps for coordinating the disposition of the legacy system with stakeholders including the FAA and DOD
- Process for configuration managing system source code and other artifacts required to run the system
- Process for release management and deployment to operational systems

It is imperative that all transition systems follow the Implementation Process; however, full compliance may not be possible due to inadequate documentation, unavailability of solution developers or other external factors. In these cases the contractor must work with AIM to tailor the process to balance acceptable risk with the need to implement the system within NAIMES II.

C. 4.4 Implementing Of Acquired AIM systems (CLIN 1005, 2005, 3005, 4005)

The Contractor must perform Implementation, In-Service Management and Disposition for systems procured under the AIM program. AIM will acquire mission essential systems providing the functions and services identified in the SOW Scope. This functionality includes:

- NOTAM
- Dynamic airspace management
- Aeronautical information management
- Aeronautical information assured delivery and acknowledgement
- Aeronautical document management
- Aeronautical system performance metrics collection and reporting systems
- Pilot briefing services
- Flight planning services
- Web sites and portals for aeronautical information service access and user support.

The Contractor will be responsible for working with the AIM solution development contractors to provide and execute a transition plan that maintains established service levels. The Contractor should expected new or enhanced systems to be implemented on a quarterly release schedule.

The Contractor must provide an AIM system transition plan and transition schedule based on C.4.3.

As described in C.4.3 the Contractor must maintain:

- Installation manuals
- User manuals
- Network diagrams
- Rack diagrams

- Software/system allocation diagrams showing how logical software subsystems are allocated to physical hardware

C.5 Transition of Legacy NAIMES (CLIN 0006)

Upon contract award the contractor must transition systems currently operated and/or maintained by the incumbent NAIMES Contractor following the process described in C.3.1.1.

The contractor must work with the incumbent contractor to provide and execute a transition plan that maintains established service levels. Legacy NAIMES operations must transition to a site selected by the Government.

The Contractor must provide a legacy NAIMES transition plan and transition schedule based on C.3.1.1.

As described in C.3.1.1 the Contractor must create or update:

- Installation manuals
- User manuals
- Network diagrams
- Rack diagrams
- Software/system allocation diagrams showing how logical software subsystems are allocated to physical hardware
- Enterprise architecture artifacts

C.5.1 Transition of Military Operations (MILOPS) Systems (CLIN 0007)

The Contractor must transition and begin operating the Military Operation (MILOPS) systems currently managed by an incumbent Contractor following the process described in C.3.1.1.

The Contractor must work with the incumbent MILOPS system Contractor to provide and execute a transition plan that maintains service levels. MILOPS systems must transition to a site selected by the Government.

The Contractor must provide a legacy NAIMES transition plan and transition schedule based on C.4.3.

As described in C.4.3 the Contractor must create or update:

- Installation manuals
- User manuals
- Network diagrams
- Rack diagrams
- Software/system allocation diagrams showing how logical software subsystems are allocated to physical hardware
- Enterprise architecture artifacts

C.6 Implementation of Redundant Sites (CLIN 0008, 1008, 2008, 3008, 4008)

The Contractor must integrate the multiple sites into the overall NAIMES system operations following the process described in C.4.3 and incorporating the additional requirements described below.

The Contractor must perform all activities associated with installation of NAIMES II systems to achieve mission essential availability at an East, West, and Alaska site. In addition, the Contractor will set up a NAIMES II test and development site at a Government specified location.

The multi-site NAIMES II operations must meet the following criteria:

- Identical east and west sites
- East and west sites are sized to handle the load of the entire NAS
- Rapid failover of the East and West sites to achieve mission essential availability
- Alaska site sized to handle the data content of the entire NAS and support operations for Alaska.
- Test site capable of running three versions of systems (previous version, baseline version and future version). The test site must be sized and designed to support NAIMES II systems and systems scheduled to be transitioned into NAIMES II.
- Development site capable of supporting other Solution Development Contractors. The development site must be managed to support solution development by contractors support the AIM Modernization program and supporting enhancements to existing NAIMES II systems.

SECTION C
DESCRIPTION/SPECIFICATION/WORK STATEMENT

The Contractor must work with AIM to:

- Develop a high level site deployment plan and waterfall
- Recommend and adopt performance metrics for failover and site performance
- Adopt a government specified remote monitoring and "lights out" system administration solution for management and reporting status of multiple NAIMES II system sites

The contractor must deploy and operate a Government selected remote monitoring and "lights out" system administration strategy for management of the multiple NAIMES II system sites. The remote monitoring and "lights out" system administration must be incorporated into the NAIMES II program management plan.

The Contractor must provide and deliver a site preparation, installation test and checkout plan, schedule and cost estimate that is based on the FAA WBS 4 (fast.faa.gov).

C.7 Glossary

ADAM… .....Advanced Dynamic Airspace Management
AIM .....Aeronautical Information Management
AMS.....Acquisition Management System
ANSI/EIA..... .....American National Standard Institute/Electronic Industries Alliance
ATO-R
CA.....Contract Award
CAS.....Commercially Available Software
CCB.....Configuration Control Board
CDRL.....Contract Data Requirements List
CM.....Configuration Management
CMP.....Configuration Management Plan
COTS.....Commercial Of-The-Shelf
CWBS.....Contract Work Break Breakdown Structure
COOP.....Continuity of Operations Plan
DOA.....Date of Award
DODAF.....Department of Defense Architecture Framework
EVM.....Earned Value management
EVMS.....Earned Value Management System
FAA.....Federal Aviation Administration
ILS.....Integration Logistics Support
IPP.....Integrated Program Plan
ISO.....International Standardization Organization
ISR.....In-Service-Review
JRC.....Joint Resource Council
LHR.....Labor Hour Estimates

SECTION C
DESCRIPTION/SPECIFICATION/WORK STATEMENT

LMI……..Logistics Management Institute
NAIMES…….National Airspace Systems Aeronautical Information Management System
NAS…….National Airspace System
NCP…….NAS Change Proposal
NOTAM……...Notice To Airman
ODC…….Other Direct Charges
OSHA……..Occupational Safety Health Administration
PHS&T…….Packaging Handling Shipping & Transportation
PMI……..Project Management Institute
PMP…….Program Management Plan
PMR…….Program Management Review
QA……...Quality Assurance
SMS…….Safety Risk Management System
SOA…….Service Oriented Architecture
TPP…….Task Performance Plan
WBS……...Work Breakdown Structure